

the invention is embodied in devices and program units ~~as described in claims 44 and 16~~. Advantageous embodiments are described in the dependent claims.

The proposed method is performed in a communication system with a layered protocol stack. Data packets are processed on an upper protocol layer and said processing is performed according to at least one timer of the upper protocol layer. The data packets are forwarded to a lower protocol layer for transmission on a channel, wherein said transmission is controlled by the lower protocol layer. Additionally, the protocol stack can comprise one or more further layers, e.g. a physical layer below the lower layer, the physical layer executing the transmissions, or a layer executing applications. The transmission is performed with variable channel access delays which are caused for example by the control procedures or external conditions.

According to the invention, the start of a transmission is detected by the lower protocol layer. Generally an event, especially the sending of a primitive from the lower protocol layer to a physical layer, initiates the transmission on the channel. If the period of time between event and transmission is defined, it is often preferable to perform the detection of said event. When the start of the transmission is detected, the upper protocol layer is notified by the lower protocol layer of the starting time. At least one timer of the upper protocol layer is synchronized according to the notification. Especially, the notification can be sent at the start of the transmission and the timers can be started when the notification is received. If the transmission is started with an offset from a detected event, timers can be corrected by the offset.

The proposed method allows to set timers according to actual transmission times and remove the influence of variable channel access delays. In this way the precision of the timing and the control of the delays is significantly enhanced and the efficiency of transmissions can be considerably improved.

09894297, 062801

Ca 11/3/06